

DRAFT

MOUNTAIN LION HUNTING PLAN

for

KOFA NATIONAL WILDLIFE REFUGE

Yuma and La Paz Counties

Arizona

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KOFA NATIONAL WILDLIFE REFUGE

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I. Introduction

Kofa National Wildlife Refuge plays a central wildlife and wild lands conservation role in western Arizona. Kofa Game Range was established in 1939 by Executive Order 8039. It became a National Wildlife Refuge (NWR) in 1976 and had 516,200 acres designated as wilderness in 1990. The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management and where appropriate, restoration of fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. The objectives of the Kofa NWR's Comprehensive Conservation Plan (*Kofa National Wildlife Refuge & Wilderness and New Water Mountains Wilderness Interagency Management Plan*) are to preserve wilderness values, maintain and enhance the natural diversity of flora and fauna, maintain high quality opportunities for recreation, and minimize the environmental impacts of mining activities on all lands and resources within the planning area.

The total current acreage of Kofa NWR is approximately 665,400 acres. It is the third largest refuge in the continental United States and is regionally important habitat for desert bighorn sheep. It has been documented that the Kofa NWR contains more than 400 taxa of flora, 193 species of birds, 49 species of mammals, and 41 species of reptiles and amphibians.

In the first year of mountain lion hunting on the Refuge, Game Management Unit 45 (45A, 45B, and 45C) would be added to the existing mountain lion hunt currently encompassing Game Management Units 16B, 40B, 41, 43A, 43B, and 44B. The total harvest objective for the expanded mountain lion hunt would remain at one animal per year for the combined 9 Units. As in all existing mountain lion hunts in Arizona, spotted kittens or females accompanied by spotted kittens may not be harvested. Hunting would be permitted during daylight hours only.

II. Conformance with Statutory Authorities

The Refuge Recreation Act of 1962 (16 U.S.C. 460K) authorizes the Secretary of the Interior to administer refuges, hatcheries, and other conservation areas for recreational use. The Refuge Recreation Act requires 1) that any recreational use permitted will not interfere with the primary purpose for which the area was established; and 2) that funds are available for the development, operation, and maintenance of the permitted forms of recreation.

Fundamental to the management of lands within the National Wildlife Refuge System (System) is the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), an amendment to the Refuge Administration Act of 1966. The Improvement Act of 1997 provided a mission for the System, and clear standards for its management, use, planning, and growth. Its passage followed the promulgation of Executive Order 12996 (April 1996), Management of Public Uses on National Wildlife Refuges, reflecting the importance of conserving natural resources for the benefit of present and future generations of people. The Improvement Act recognized that wildlife dependent recreational uses involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation, when determined to be compatible with the mission of the System and purposes of the

refuge, are legitimate and appropriate public uses of the Refuge System. Compatible wildlife-dependent recreational uses are the priority general public uses of the System and shall receive priority consideration in planning and management.

Recreational hunting authorized by the regulations should not interfere with the primary purpose for which the Kofa NWR was established. This determination is based upon the completion of a Compatibility Determination (Section D).

The estimated annual cost of the mountain lion hunting program would be \$24,000 for the first year under the current proposal. These costs include administering the existing hunting program. Costs would include but not be limited to: law enforcement, sign and boundary maintenance, road maintenance, printing of brochures and permits, check stations, permit process, hunter inquiries, and lion population monitoring. Approximately 300 mountain lion hunting visits are expected initially, many of which would likely be in conjunction with hunting other game species, such as deer or desert bighorn sheep. Current budget expectations are sufficient to manage a hunting program, but budgetary support will be required from the Arizona Game and Fish Department (AGFD) and hunting proponents for population monitoring and management. The Refuge staff currently consists of the Refuge Manager, Assistant Manager, Biologist, Law Enforcement Officer, Engineering Equipment Operator, Maintenance Worker, and Administrative Assistant.

Refer to the *Compatibility Determination* (Section D) and *Recreation Act Funding Analysis* (Section G) for additional information.

III. Purpose and Need for Action

The purpose of this action is to permit mountain lion hunting on the Kofa National Wildlife Refuge (NWR), Yuma and La Paz County, Arizona. Mule deer, bighorn sheep, quail, coyote, fox, and cottontail rabbit hunting is currently authorized and on-going. Kofa NWR was established for the following purposes:

“...set apart for the conservation and development of natural wildlife resources, and for the protection of public grazing lands and natural forage resources.” [Executive Order 8039]

“...consolidating the authorities relating to the various categories of areas that are administered by the Secretary of Interior for the conservation of fish and wildlife, including...game ranges....are hereby designated as the National Wildlife Refuge System,...and shall be administered by the Secretary through the United States Fish and Wildlife Service.” [National Wildlife Refuge System Administration Act of 1966, as amended]

“...certain lands in the Kofa National Wildlife Refuge, Arizona, which comprise approximately 510,900 acres and certain other public lands comprising 5,300 acres which are hereby added to and incorporated within such Refuge (and which shall be managed accordingly)...areas designated under this title shall be administered...in accordance with the Wilderness Act...” [Arizona Desert Wilderness Act of 1990]

In addition to the stated purpose of the Refuge, additional objectives were also established under the 1996 *Kofa National Wildlife Refuge & Wilderness and New Water Mountains Wilderness Interagency Management Plan* as follows:

1. Preservation of Wilderness Values – maintain or enhance the wilderness values of naturalness, outstanding opportunities for solitude and primitive recreation, and special features of the planning area.
2. Wildlife and Habitat Management – maintain and enhance the natural diversity of flora and fauna.
3. Recreation, Legal access, and Public Information – maintain high quality opportunities for recreation within the planning area, and where applicable, wildlife dependent and/or primitive recreation that is compatible with the purpose for which Kofa NWR was established. These uses include wildlife observation, hiking, hunting, camping, photography, and solitude.
4. Minerals Management – minimize the environmental impacts of mining activities on all lands and resources within the planning area.

The Plan acknowledges that hunting is a long-standing public use on Kofa NWR, but it does not specifically address opening the Refuge for hunting programs that were not in existence at the time. As a management objective, hunting provides the public with an opportunity to utilize a renewable resource. Hunting is compatible with Refuge purpose and mission of the system and is in the public's interest on Kofa NWR as described under the National Wildlife Refuge System Improvement Act of 1997.

Refer to the *Environmental Assessment* (Section B) for additional information.

IV. Assessment

Mountain lions are one of 10 Arizona big game species recognized by AGFD. Mountain lions have long been considered occasional transients on Kofa NWR, not residents. After a mountain lion was killed by a government trapper on the Refuge in 1944, no reliable reports of mountain lions were obtained until June 2000 when a mountain lion was seen by a Refuge staff member near Squaw Tank. Continued sightings by hunters, and the sighting of three mountain lions by an Arizona Game and Fish Department (AGFD) biologist during a 2003 aerial survey prompted the Refuge to place remote cameras at waterholes starting in December 2003. In 2005, 7 more cameras were added. Between January 2004 and August 2006, 46 photographs of mountain lions were obtained. In 2006, the Refuge made two attempts to capture and place a Global Positioning System (GPS) satellite collar on a mountain lion with the assistance of U.S. Department of Agriculture Wildlife Services. Based on examinations of photographs and tracks found during these capture efforts, there are at least five mountain lions in the Kofa Mountains alone. Several photographs of a female mountain lion with kittens in successive years suggest that mountain lions are breeding successfully on the Refuge. Organized lion monitoring has not occurred in the Castle Dome Mountains, and so population information is extremely limited for that area. A deer that had been killed by a mountain lion and loosely covered with gravel was discovered at Little White Tanks in 2001 and a mountain lion was observed on an AGFD remote video at Adams Well in 2002.

All indications from current surveys from Refuge staff and the AGFD biologists are that mountain lion

populations are sufficient for limited public hunting. However, the continuation of the hunt is dependent on ongoing monitoring of the population and will depend greatly upon whether lions are found to immigrate back into the Refuge to replace any lion taken. The monitoring must be sufficient to determine trends in the population: cougar sightings, depredation events, and harvest levels are not reliable ways to index cougar populations. If populations, habitat, or hunter success rates significantly change or may eliminate lion populations, modifications to the hunt program will be addressed. The decision to allow or cancel the hunt may be made on a yearly basis contingent upon adequate lion population data.

Refer to the *Environmental Assessment* (Section B) and *Letter of Concurrence* (Section H) for additional information.

V. Description of Hunting Program

The Kofa NWR has a limited overall hunting season. The season corresponds to the State season for quail and runs from the first or second weekend in October through the first or second weekend in February, depending on year. The precise dates are set annually by the Arizona Game and Fish Commission. During that time period, Kofa NWR is currently open to quail, cottontail, fox, and coyote hunting. Within that four-month period, a 10-day general rifle deer hunt takes place in late October or early November, desert bighorn sheep hunting takes place throughout the month of December, and archery deer hunting is permitted throughout the month of January. During the remaining eight months of the year, the Refuge is closed to all hunting and no firearms are permitted.

Seasons, licenses, hunter safety courses, species, and bag limits are within the guidelines established by AGFD, but the Refuge hunt will be more restrictive to ensure compatibility with other Refuge purposes. The limitations and descriptions of the mountain lion hunt are explained below.

The hunting season for mountain lions within Kofa NWR would be concurrent with the State season for quail, while the mountain lion season for the remaining hunt units would continue to be year-long. Participants must have a valid hunting license and current a mountain lion tag. The only exception is that during the 10-day general mule deer season, the Refuge would be closed to the hunting of foxes, coyotes and mountain lions. These animals may only be taken if the hunter has a valid deer tag, until the deer tag is filled. The statewide bag limit is one mountain lion per person per calendar year. Spotted kittens or females accompanied by spotted kittens may not be harvested. However, because females are not always accompanied by their kittens, hunters will be encouraged to take male lions rather than females to avoid orphaning kittens. Hunting would continue to be permitted during daylight hours only.

The existing requirement to contact an AGFD office in person within 48 hours after taking a mountain lion would remain. This report would continue to include the hunter's name, hunting license number, tag number, sex of the lion taken, management unit where the lion was taken, and a telephone number at which the hunter can be reached to obtain additional information. After this report is made, the mountain lion hunt within all of the nine involved Game Management Units (45A, 45B, 45C, 16B, 40B, 41, 43A, 43B, and 44B) would close since the harvest objective of one animal would have been reached.

It would continue to be the responsibility of mountain lion hunters to call the AGFD at 1-877-438-0447 before mountain lion hunting to determine if the harvest objective for their desired hunt unit has been met and if hunting is still permitted.

In addition, within 10 days of taking a lion, the hunter shall present the lion's skull, hide, and attached proof of sex for inspection by AGFD officials and for the removal of one mountain lion tooth for aging. There are additional requirements for mountain lion hunters published in the annual *Arizona Hunting and Trapping Regulations* printed by the AGFD.

The hunting program will be reviewed on an annual basis and necessary changes will be incorporated accordingly. Law enforcement will consist of random hunting license and bag limit checks by Refuge staff and AGFD Wildlife Managers.

At this time, insufficient data exists to determine the sustainability of the hunt beyond the harvest of one lion annually. Continued population monitoring is required to determine if births or immigration are sufficient to replace any lions taken by hunters. The Refuge and AGFD are cooperating to radio or GPS collar known lions and continue remote camera monitoring. The decision to continue, expand, or cancel the lion hunt may be made on a yearly basis contingent upon previous harvest and current monitoring data.

VI. Measures Taken to Avoid Conflicts with Other Management Objectives

A. Biological Conflicts

None of the current lands within the acquisition boundary of the Refuge have been designated critical habitat for any species listed as endangered under the Endangered Species Act of 1973, as amended. There are currently harvestable and sustainable populations of mountain lions found throughout the Refuge Game Management Units (45A, 45B, and 45C) and the surrounding Units (16B, 40B, 41, 43A, 43B, and 44B), although the sustainability of the hunt once one lion is taken is unknown. The limited season length of this proposed hunt should not cause any significant or long term conflicts with any other species of animals found on the Refuge. If it is determined that there are excessive disturbances to non-target species, changes will be made by restricting some uses to include: reducing hunters, rotating units, and reducing the number of days hunting is allowed. Refuge Officers will make every effort to maximize protection of non-target species. The lion hunt is also dependent on adequate monitoring of the lion population to ensure that a harvestable population is maintained.

Refer to the *Environmental Assessment* (Section B) and the *Section 7 Evaluation*

B. Public Use Conflicts

Public uses are designed to compliment each other and reduce conflict. Kofa offers hunting, wildlife observation and photography, interpretation, and environmental education. Secondary uses which are allowed on the Refuge are camping, rock climbing, limited rock collecting, horseback riding, hiking and backpacking, and OHV use. Although prime campsites tend to fill up quickly during hunt season, no conflicts between hunters and other recreational visitors have been documented so far. Restricting the predator hunt during deer season helps avoid conflicts between groups of hunters, as does the temporal separation between deer and sheep season.

C. Administrative Conflicts

At this time, no administrative conflicts are anticipated. The mountain lion hunt is dependent on sufficient monitoring of the mountain lion population to ensure that harvest is sustainable. This monitoring will require support from the AGFD and local hunt groups. If hunters fail to follow AGFD reporting guidelines, monitoring reveals insufficient population for hunting, or there is inadequate support to continue population monitoring, then the hunt may be cancelled in the future.

VII. Conduct of the Hunting Program

Listed below are Refuge-Specific regulations that pertain to Kofa NWR as of the date of this plan.

A. Refuge-Specific Hunting Regulations

1. Kofa NWR has an abbreviated season on predatory animals (foxes and coyotes). The Refuge is currently closed to the taking of these predatory animals during the general deer season, except that deer hunters with valid Unit 45A, 45B, and 45C deer permits may take predatory animals until they have taken a deer. This restriction would be extended to include mountain lions, such that during the general deer season only those individuals holding a valid Unit 45A, 45B, and 45C deer permit would be able to hunt mountain lions, until they have taken a deer.
2. Units 45A, 45B, and 45C, 16B, 40B, 41, 43A, 43B, and 44B will close to the take of mountain lions following the reported harvest of a mountain lion. Hunters are responsible for calling 1-877-438-0447 before hunting to determine if their desired hunt unit is still open.
3. Private lands occur within the Refuge and may be posted
4. Shooting from a vehicle is prohibited
5. All firearms, including handguns, rifles, and shotguns, within a vehicle must be unloaded and either cased or broken down.
6. The possession or use of any weapon is prohibited, except for approved hunting.
7. Trapping is not permitted on the Refuge.
8. Mechanized, vehicular traffic is limited to designated roads which can be identified by numbered markers at junctions. Off-road vehicle travel is prohibited. All motorized vehicles, including ATCs,

ATVs, quadratracs and motorcycles, and all drivers, must be licensed and insured for highway driving.

9. Camping is permitted; however, vehicles must remain within 100 feet of designated roads.

10. Littering is unlawful. All trash must be packed out, not buried. Bury all human waste and burn toilet paper or pack it out. Please “Leave No Trace”.

11. Hunting seasons for the Refuge are listed in the *Arizona Hunting and Trapping Regulations* printed annually by AGFD.

12. Recreational livestock permitted on the Refuge include horses, mules, burros, and llamas. The use of feeding containers is required and water must be packed in. All surface disturbances at campsites must be restored. Use of pelletized feed is recommended and preferred. Livestock are not to be tethered directly to trees or other vegetation.

13. Campfires are generally permitted when there is no special fire restriction in effect. Only dead, down and detached wood may be used. Uprooting dead stumps, trees, and bushes is prohibited. Dead wood may only be collected from areas on the Refuge which is not designated as wilderness. Collecting wood from wilderness lands is prohibited. No wood may be removed from the Refuge.

B. Public Reaction to the Hunting Program

The public reaction to the availability of hunting opportunities on Kofa NWR has been favorable. Local hunting groups, including the Yuma Valley Rod and Gun Club, have specifically requested a mountain lion hunt for several years. The hunt plan was released for public comment on November 22, 2006.

C. Media Selection for Announcing and Publicizing the Hunting Program

The Refuge maintains a mailing list, for news release purposes, of local newspapers and stakeholders. Special announcements and articles may be released in conjunction with hunting seasons. Letters are mailed to all deer and bighorn sheep permit holders every year with maps and regulations for the hunt.

D. General Requirements

General information regarding mountain lion hunting and other public uses can be obtained at the Refuge office at 356 W. 1st St, Yuma, AZ, by calling (928) 783-7861, or email at Debbie_Pike@fws.gov. Dates, forms, hunting unit directions, permit requirements, etc for the hunt season (as well as other general Refuge information) can be obtained through the Kofa NWR website at <http://www.fws.gov/southwest/refuges/arizona/kofa.html>